

Date: Thu, 27 Jan 94 04:30:21 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #15
To: Ham-Ant

Ham-Ant Digest Thu, 27 Jan 94 Volume 94 : Issue 15

Today's Topics:

 Computing antenna coverage
 HELP on radiation resistance equations
 Vintage Ham Gear For Sal
 Where can I find copper-weld??

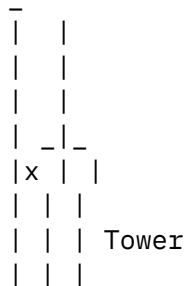
Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 25 Jan 1994 19:48:24 GMT
From: world!cravit@uunet.uu.net
Subject: Computing antenna coverage
To: ham-ant@ucsd.edu

A friend of mine asked me this question, and I do not know the answer.
If one has an antenna (say a vertical or something, as opposed to a
beam) that is x feet above ground level, how does one compute the
approximate coverage area of that antenna (in square miles)? For
example, see the following diagram



| | |
| | |

-----Ground-----

If we assume that the distance x is, say, 200 feet and that the ground around the antenna is relatively flat, is there a way to estimate the area of coverage for that antenna?

Thanks,

/MC

--

Matthew Cravit, N9VWG	All opinions expressed here are
Michigan State University	my own. I don't speak for The World,
East Lansing, MI 48825	and they don't speak for me (luckily
E-Mail: cravit@world.std.com	for both of us).

Date: 24 Jan 1994 17:46:58 GMT
From: sdd.hp.com!spool.mu.edu!torn!hermes.acs.ryerson.ca!ee.ryerson.ca!
jeff@network.ucsd.edu
Subject: HELP on radiation resistance equations
To: ham-ant@ucsd.edu

Wayne Price (wayne@howard.nafb.trw.com) wrote:

: HELP NEEDED ON ANTENNA EQUATION FOR RADIATION RESISTANCE!
:
: Do any of you braniacs know the equation for radiation resistance
: of a vertical, shorter than a quarter wave, resonated with a
: lossless inductor, over a perfect ground? I can't find the info
: in my reference material, but seem to remember that it was an
: inverse square relationship.
:
: For example, if the radiation resistance for a quarter wave is
: 36.6 ohms, an eighth wave (resonated with lossless inductor)
: would have half the length and one fourth the radiation
: resistance, or $36.6/4=9.1$ ohms. Likewise, a 3 foot long ten
: meter vertical would be about $3/8$ of the length and $(3/8)^2=.14$
: of the radiation resistance. ($.14*36.6=5.1$ ohms.)
:
: Is this correct?

Unfortunately, it's not that simple. The entire thing of calculating the radiation resistance of a given antenna at any frequency is dependant on far too many parameters to provide one simple equation for. Having said

that, there is an equation for electrically short ($\ll .1$ wavelength) antenna that has a large length to diameter ratio, but I can't seem to find it right now. Your best bet is to find a copy of the ARRL Antenna Handbook. They cover all the 'standard' amateur designs, and give you some insight into why radiation resistance is a little more complicated than one would think.

:

: Thanks,

: Wayne W5GIE (shaking, but not yet breaking) in So. Cal.

:

: (standard disclaimer applies)

73!!! de Jeff / VE3DJF

Internet Jeff@ee.Ryerson.Ca

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AX25 VE3DJF@VE3RPI.#SCON.ON.CAN.NOAM

Bill Gates is a bean counter, M\$ Windoze cost too much, does too little.
This posting sent from a machine running Linux. The UNIX of a GNU generation
Get your free copy of the best 32bit operating system from sunsite.unc.edu!

Date: 24 Jan 94 15:23:02 -0600

From: agate!library.ucla.edu!europa.eng.gtefsd.com!news.umbc.edu!eff!news.kei.com!
ddsw1!chigate!radiohobby!don.merz@network.ucsd.edu

Subject: Vintage Ham Gear For Sale

To: ham-ant@ucsd.edu

Vintage Communications Gear For Sale

CONTACT: Don Merz, 47 Hazel Drive, Pittsburgh, PA 15228
412-234-8819 (weekdays, EST) or 412-344-0956 (eves and WEs to 10PM)

These are the latest additions to a complete list that is posted in
Compuserve HAMNET Library 10 in the file RADIOS.TXT...or available by
mail by sending a 2-stamp SASE to the above address.

Seeburg jukebox extension speaker. The famous Seeburg teardrop model
CV54-8. Pink (or peach?) speckle finish with the word "Seeburg" printed
across the grill cloth. Looks and works very good. Should clean up to
like-new. \$89

Motorola TC-101 UHF TV converter. Some scuffs on original wooden case, but
still nice. \$13

1957 Eico catalog. As-new: \$9

1956 Eico brochure set. As-new: \$4

1957 Grommes (Precision) catalog. Large, 3-color. Excellent: \$9

1957 Grommes (Precision) catalog. Small, B&W. Excellent: \$7
Knight-kit 5 tube AM radio assembly manual. As-new: \$4
1971 (?) Panasonic catalog. As-new: \$2
1948 Surplus Radio Conversion Manual, Volume I. By Evenson & Beach.
Published by techno-graphic publications. Excellent condition. This
volume is getting mighty tough to find. \$29
CQ MAGAZINE: 1945 issues: July, August, September (2): \$7 each
CQ-DX Annual. 1948. 1st Edition, 1st Printing. \$23
ANTIQUE TV SERVICE LITERATURE: 110 pounds of antique TV service docs
including 6 volumes of Riders TV Manuals, service guides from RCA, Dumont,
GE and Philco. Hundreds of issues of Circuit Digest and MUCH MORE!
Take it all shipped to your door for \$75 (includes shipping).
SAMS PHOTOFACTS: Over 150 complete photofacts and over 100 partial sets--
fills a four-drawer file cabinet. Numbers range from 100 up through
about 450. Take them all for \$109 shipped to your door (price includes
shipping).
Hallicrafters HT-18 transmitter. Missing a knob. Otherwise very nice. \$69
National HFS receiver. 1949-vintage plug-in coil set covering 27 - 250mhz.
AM/FM (slope-detection)/CW superregen set. With all coils, matching
5886 doghouse power supply and original manual. Front panel is very
good, but the paint is smudged and scruffy in many places. Has several
scratches on top too. Works perfectly. \$169
Multi-Elmac PMR-7 receiver. 160-10 meters. Mobile. 1957-vintage. BRAND NEW
IN THE ORIGINAL BOX. Never installed. Has not had power applied since
it left the factory. Mint. \$279.
Multi-Elmac PSR-612 power supply for PMR-7 and other Elmac radios. This
is the mobile supply that works on 6 or 12 volts. BRAND NEW IN THE
ORIGINAL BOX. Mint. \$99.
Gonset GSB-100 transmitter. 100 watt, 80-10 meter transmitter with AM, CW and
SSB capability. Near-mint in every respect. No scratches, no wear--a
real beauty. Works perfectly. Original manual. \$239
Abbott TR-4. In two years of combing the market, I have seen exactly one of
these ever offered for sale. The Abbott radios were early VHF transcievers
covering the old VHF bands: 5 meters and 2-1/4 meters. When the war broke
out, they were picked up by the WERS--War Emergency Radio Service--as the
civil defense radio of choice. I have two of these, one slightly different
from the other. Both show some signs of wear and have not been tested. No
manuals. As-is. \$149 each.
Military TCS transmitter. Slightly modified but nothing shows. As-is.
Untested. No manual. \$89
Military FRR-21 VLF receiver. This is the shore-based version of the SRR-11.
It looks and works like the SRR-11 radio too. Matches the FRR-22 and FRR-23
sets which together cover the HF band. The left handle on this one is
slightly bent, though hardly noticable. Neat rarity for the military
enthusiast. \$179
Meissner 150B Transmitter. 1941-vintage, 150 watt, plate-modulated AM
transmitter originally designed for broadcast AM radio station use but
drafted by the Signal Corps for the duration. CW too. Covers 1500khz

through 12mhz. Uses Meissner Signal Shifter VFO and plug-in coils. This one includes two Signal Shifters, one complete set of coils and a few extras and a manual photocopy. Formerly owned by the Chief Engineer of W1AW, the transmitter has been modified for improved audio. It has several unoriginal 3/8" holes in the 1/8" thick steel front panel. It measures 40"w x 18"h x 20"d and weighs just over 250 pounds. It is not modular and could only be shipped at great expense. Best offer over \$900.

Multi-Elmac Gear. Classic AM mobile and fixed station equipment from the 50's using a 6146 final to develop 30 watts output. This is all used and cosmetically good, but not excellent. Manuals included. No Mods. Was working when pulled from estate 9 months ago, but untested since. As-is. AF67 Transmitter: \$129 (2 to sell)

PMR6A Receiver: \$99, another one w/cracked plastic dial: \$89

PSR6 DC Power Supply: \$89

M1070 AC/DC Power Supply (also works with AF68): \$139

E. F. Johnson Invader 2000. 1 KW output SSB and CW, 300 watts AM (balanced modulation--not plate modulated). A full gallon in style! When was the last time you saw one offered for sale? Excellent cosmetic and working condition with manual. \$1,199

ARRL Hints & Kinks, Volume 2, 1937. No Covers: \$4

ARRL Hints & Kinks, Volume 2, 1937. Very good with both covers: \$18

Hammarlund HQ-110 receiver. Electrically modified, but nothing shows. Paint is scruffy at the edges, but front panel is excellent and the radio looks good overall. Complete, unworking, as-is: \$45

X SLMR 2.1a X

Date: 24 Jan 1994 17:55:21 GMT
From: noc.near.net!sunfish.hi.com!brainiac.hi.com!user@uunet.uu.net
Subject: Where can I find copper-weld??
To: ham-ant@ucsd.edu

In article <CJy862.7KD@wri.com>, pea@wri.com (Bruce Pea) wrote:
> I've checked with all the hardware stores and electrical supply
> houses in my area and nobody has the stuff. Am I looking in the
> wrong places???

Ocean State Electronics
P.O. Box 1458
Westerly RI 02891
(800)-866-6626 (orders)
(401)-596-3080
(401)-596-3590 (FAX)

Universal Radio
6830 Americana Pkwy

Reynoldsburg, Ohio 43068
1-800-431-3939 (orders)
1-614-866-4267 (info)

Steve Byan
Hitachi Computer Products (America), Inc.
1601 Trapelo Road
Waltham, MA 02154

internet: steve@hicomb.hi.com

phone: (617) 890-0444
FAX: (617) 890-4998

End of Ham-Ant Digest V94 #15

